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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/616,643	07/10/2003	Gerald D. Pedersen	WEAT/0153.P1	3439

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EXAMINER

GAY, JENNIFER HAWKINS

ART UNIT PAPER NUMBER

3672

DATE MAILED: 10/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/616,643	PEDERSEN ET AL.	
	Examiner	Art Unit	
	Jennifer H. Gay	3672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 6-12, 14-23, 25-32, 34-44 and 46-58 is/are pending in the application.
- 4a) Of the above claim(s) 18-22, 35-39 and 47-51 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 40-44 and 46 is/are allowed.
- 6) ☒ Claim(s) 1-3, 6-17, 23, 25-32, 34, 52-55, 57 and 58 is/are rejected.
- 7) ☒ Claim(s) 56 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Claims 18-22, 35-39, and 47-51 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 01 September 2005.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-3, 6-9, 23, 52, and 53 are rejected under 35 U.S.C. 102(e) as being anticipated by Lee (US 3,971,436).

Regarding claims 1: Lee discloses a plug-dropping container within a head member for releasing an object into a wellbore. The container includes the following features:

- A tubular housing **T**.
- A tubular canister **S2** disposed within and generally aligned with the housing by centralizing members **70** so as to define an annulus (Figures 2a and 2b) between the housing and the canister. The canister includes an inner surface. The centralizing members allow fluid flow through the annulus (Figure 3).
- A channel **58b** along the inner surface of the canister that is configured to receive the object **64** therein.
- A valve **R2** disposed within the housing proximal the lower end of the canister. The valve includes a solid surface and a channel. The valve

is movable between an object-retained position where the solid surface blocks the object from exiting the canister but allows fluids to flow around the valve and a object-release position where the channel of the valve is in alignment with the channel of the canister thereby allowing the object to exit the canister and travel downward through the valve and the solid surface of the valve blocks flow around the valve (paragraphs [0069]-[0072].

Regarding claims 2, 3: The object is a dart or a ball.

Regarding claim 6: The tubular housing includes a top opening and a bottom opening where the housing is in fluid communication with a channel 44b in the head member through which fluids are circulated into the wellbore.

Regarding claim 7: The canister includes a top opening, a bottom opening (Figures 2a and 2b), a bypass area 44i for placing the inner surface of the canister in fluid communication with the annulus between the housing and the canister.

Regarding claim 8: The bypass defines at least one port 44h in the canister.

Regarding claim 9: The bypass is further defined by a gap between the top opening of the canister and the head member (Figure 2a).

Regarding claim 23: The head member is a cementing head.

Regarding claims 52, 53: The centralizing members are welded to the canister (5:13-17). Though not specifically taught, the examiner takes Official Notice that the centralizing members could be attached to the housing instead of the canister, as the centralizing members would perform the same function attached to either the canister or the housing.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claim 1-3, 6-17, 23-32, 34, 52-55, 57 and 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Simson in view of Lee.

Regarding claims 1, 25, 55, 58: Simson discloses a plug-dropping container **200** within a head member for releasing an object into a wellbore. The container includes the following features:

- A tubular housing **220**.
- A tubular canister **240** disposed within and generally aligned with the housing so as to define an annulus **249** between the housing and the canister. The canister includes an inner surface.
- A channel **244** along the inner surface of the canister that is configured to receive the object **290** therein.
- A valve **250** disposed within the housing proximal the lower end of the canister. The valve includes a solid surface and a channel **264**. The valve is movable between an object-retained position where the solid surface blocks the object from exiting the canister but allows fluids to flow around the valve and an object-release position where the channel of the valve is in alignment with the channel of the canister thereby allowing the object to exit the canister and travel downward through the valve and the solid surface of the valve blocks flow around the valve (paragraphs [0069]-[0072]).

Simson discloses all of the limitations of the above claims except for the tubular canister including at least one centralizing member that allows fluid flow through the annulus.

Lee discloses a plug-dropping container similar to that of Simson. Lee further teaches centralizing members **70** on the canister that allow fluid flow through an annulus between the canister and the tubular housing.

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified the canister of Simson to include centralizing members as taught by Lee in order to have ensured that the canister thus the

plug was properly aligned with the valve so that it would not become hung when dropped.

Regarding claims 2, 3, 26: The object is a dart or a ball.

Regarding claim 6: The tubular housing includes a top opening and a bottom opening where the housing is in fluid communication with a channel in the head member through which fluids are circulated into the wellbore.

Regarding claims 7, 27: The canister includes a top opening, a bottom opening (Figure 2), a bypass area **246** for placing the inner surface of the canister in fluid communication with the annulus between the housing and the canister.

Regarding claims 8, 28: The bypass defines at least one port **246** in the canister.

Regarding claims 9, 29: The bypass is further defined by a gap between the top opening of the canister and the head member **900**.

Regarding claims 10, 30, 54, 55: The solid surface of the valve defines a radial surface (Figure 7) and a truncated portion **760** so as to disrupt the radial surface around the valve channel thus providing a means for bypass flow past the valve when the valve is in its object-retained position.

Regarding claims 11, 31, 57: The radial surface of the valve is rotated into close proximity with a lower opening in the canister so that it blocks release of the object when the valve is in its object-retained position.

Regarding claims 12, 32: The valve can be either spherical or cylindrical (paragraph [0058]).

Regarding claims 14, 34: The container includes a stop member **625, 810** that limits the rotation of the valve to approximately 90 degrees (paragraph [0059]).

Regarding claim 15: The rotation of the valve is via a shaft **256**.

Regarding claims 16, 17: The valve is rotated manually or automatically (paragraph [0055]).

Regarding claim 23: The head member is a cementing head.

Regarding claim 24: The container includes at least one spacer **500** disposed between the housing and the canister that would function to centralize the canister in the housing.

Regarding claim 25: Simson further teaches that any number of container units and canisters can be used (paragraph [0076]).

Regarding claim 52: The centralizing members are welded to the canister (5:13-17).

Regarding claim 53: Though not specifically disclosed by Lee, it would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have attached the centralizing members to the tubular housing as the same centralizing function would have been accomplished with the centralizing members being attached to either the canister or the housing.

Allowable Subject Matter

6. Claims 40-44 and 46 are allowed.
7. Claim 56 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

8. In view of applicant's amendment, the objections to the drawings, specification, and claims as well as the 35 USC 112(2) rejection of claims 25-34 have been withdrawn.
9. The Terminal Disclaimer filed 1 September 2005 has been approved and entered. Therefore, the Double Patenting rejection presented in the previous Office Action has been withdrawn.
10. Applicant's arguments with respect to claims 1 and 25 have been considered but are moot in view of the new ground(s) of rejection.

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11. Applicant's arguments filed 1 September 2005 with respect to claim 40 have been fully considered and are persuasive. The 35 USC 102 rejection of claim 40 has been withdrawn.

12. Applicant has argued the 35 USC 103(a) rejection of claim 5 presented in the previous Office Action. The examiner notes however that applicant has cancelled claim 5 thus the argument is moot.

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

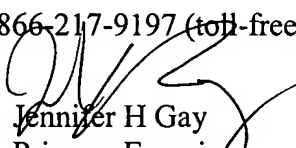
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer H. Gay whose telephone number is (571) 272-7029. The examiner can normally be reached on Monday-Thursday, 6:30-4:00 and Friday, 6:30-1:00.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bagnell can be reached on (571) 272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jennifer H Gay
Primary Examiner
Art Unit 3672



JHG
October 4, 2005